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A FLORA OF NEVADA. NO. 33.

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MEDICINAL USES OF PLANTS BY INDIAN TRIBES OF NEVADA

by

Percy Train, James R. Henrichs, and W. Andrew Archer

PART II - (PAGES 62 - 129)

December 1, 1941

Issued by

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Collaborator

University of Nevada.

Address all queries concerning this publication to the Division of Plant Exploration and Introduction, Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C.

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CREPIS ACUMINATA Nutt. Compositae

(S) ah-zah-div-o-wip; bee-sha-no-go. (E) hawksbeard.

The seed, or the whole plant, are thoroughly crushed and applied as poultices on breasts after childbirth, to induce milk flow, or to relieve sore or caked breasts (Austin - S).

In one case the root of the plant was used as a means of removing a foreign object from the eyeball of a patient. The root ground to a smooth powder, was sprinkled directly into the eye. Several days of application were necessary to dislodge the imbedded object but afterward the resultant inflammation cleared up rapidly (Ruby Valley - S).

CREPIS SCOPULORUM Coville Compositae

(S) ah-zah-div-oh-wip; bee-jee div-oh-wip. (E) hawksbeard.

The root is made into a wash for sore eyes (Ruby Valley - S); the entire plant is mashed and applied as a poultice to caked breasts of women (Wells - S); and in one instance there was a report that the latex could be applied to lessen the discomfort of bee stings or insect bites (Fallon - P).

CUCURBITA FOETIDISSIMA H. B. K. Cucurbitaceae

(Moapa P) ahn-no-quav; arno-cup. (S) poo-nono.

(E) desert gourd.

The large storage root of the plant is employed mainly as a cure for venereal diseases, apparently for both syphilis and gon-

orrhea (Beatty, Fallon, Lida, Moapa, and Tonopah - P & S). Many of the Indians warned of the poisonous nature of the plant and said that some deaths had occured from overdoses of the medicine. At Tonopah the exact method was indicated for preparing the medicine: pieces of the large root are roasted in hot ashes and rocks, being thoroughly dried afterward; a small piece, not much larger than a stick of chewing gum, is boiled in two quarts of water. One cup or less of the liquid constitutes a dose. It is said that it acts first as a continous emetic then as a physic.

The seed sometimes are pulverized and applied as a dry powder on venereal sores (Moapa - P).

It is also claimed that the root decoction will kill maggots in wounds (Moapa - P).

CUSCUTA spp. Convolvulaceae

(P) canaza-kwee-sha; too-vah-saah. (E) dodder.

The second of the Paiutes names given above is not the real name of the plant but means literally - "woman without children". It is believed that if a woman eats this material that she will not conceive. The plant is eaten from time to time when sterility is desired (Reno - P).

CYMOPTERUS GLOBOSUS S. Wats. Umbelliferae

(P) ye-duts; ye-luts.

Unconfirmed data seemed to indicate that the water from boiled roots can serve as an insecticide (Fallon and Yerington - P),

especially to kill mites on chickens (Schurz - P).

CYPERUS ESCULENTUS L. Cyperaceae

See under Nicotiana attenuata.

DALEA FREMONTII Torr. Leguminosae

(Moapa P) i-era-midja. (S) quee-um-be; tuh-goo-buss-e-emp.

To stop internal hemorrhages a tea was prepared from the boiled roots, according to one Indian, or from the boiled tops, according to another (Beatty - S). One Indian woman had heard that the root decoction could be taken for stomach trouble (Beatty - S). Other individuals gave a name to the plant and knew it was medicinal but they could not say for what purpose (Moapa - P).

DALEA POLYADENIA Torr. Leguminosae

(P) ma-good-du-hoo; ma-good-tu-hoo; moh-goon-du-hoop; moh-goon-du-hoopie. (S) ma-good-tu-hoo; moh-goon-du-hu.

(E) smokebush.

The plant is known generally over the entire State by all the tribes as a remedy for colds and coughs. The tea for this purpose is made usually from boiled stems, either fresh or dried, and ordinarily is taken hot but there is one person who specified that the drink should be cold (Upper Reese River - S). The Shoshones of Upper Reese River prepare a bitter solution by boiling together the smaller stems, the leaves and flowers; while those of Tonopah gather the stems and dry them, using a handful to a quart of water for

the brew. The dosage apparently is never more than a cupful of the tea at a time (Upper Reese River - S) and some Indians specified that the quantity should be not more than a half-cupful (Winnemucca - P); others said that the twigs should be steeped only and not boiled (Rawhide - P).

The stem decoction is especially favored as a pneumonia medicine (Fallon, Mason Valley, Schurz, and Yerington - P & S). In most instances it was indicated merely that the stems were boiled but in one case there was a specific reference to the use of young stems (Fallon - P), in another only the thick, basal stalks were utilized (Schurz - P), and one Indian preferred the tops of the plants (Schurz - P). The dosage in one community was a half-cupful taken three times a day (Schurz - P).

The decoction was given also for tuberculosis (Rawhide, Smith Valley, and Upper Reese River - P & S), and for influenza (Monitor Valley and Nixon - P & S). Sugar was added to the drink for whooping cough (Lovelock - P).

A number of communities resorted to the hot or cold tea for relief of stomach-aches (Fallon, Reno, Round Mountain, and Smith Valley - P & S).

The medicine was mentioned several times in relation to kidney trouble. A tea from the boiled tops was said to induce urination (Smith Valley - P). A case was cited in which a patient had been cured of pains in the back over the kidneys and incontinence of urine by drinking large quantities of the strong tea for several days (Upper Reese River - S). Another medicine for kidney ailments

was prepared by boiling the stems and tops of the smokebush with twigs of Juniperus utahensis (Austin - P & S).

An important treatment seems to be that for smallpox. For this the tea is given internally in small doses and the solution is used externally as an antiseptic bath (Austin and Elko - S), or only the external treatment is employed (Schurz - P). At Austin finely chopped twigs of Juniperus utahensis sometimes form part of the brew.

The tea was mentioned twice as a treatment for venereal diseases but as usual the long period of time, necessary in this treatment, was stressed (Fallon and Monitor Valley - P & S).

For measles the tea was taken internally (Fallon - P) but sometimes the treatment consisted in using the solution as an external, antiseptic wash (Schurz - P).

A tea was taken for muscular pains (Smith Valley - P), and a strong tea for diarrhea (Reno and Yerington - P & S). The stems were chewed for toothache or face neuralgia (Nixon - P), and a hot solution served as a wash for rheumatism (Schurz - P).

In the treatment for sores, the stems were dried, pulverized and used as a powder (Lovelock and Nixon - P) or in one case the crushed fresh stems were rubbed on and then sprinkled with a dry red earth, known as 'pee-sha-pee' (Reno - P).

DATURA METELOIDES DC. Solanaceae

(Moapa P) moh-mope. (S) moh-eep. (E) jimson weed.

Apparently none of the Nevada Indians employ the plant for

medicinal purposes althcugh they do know that a narcotic tea can be secured from the roots (Beatty, Moapa, and Tonopah - P & S).

DESMANTHUS ILLINOENSIS (Michx.) MacM. Leguminosae

(Moapa P) pah-oh-pimb.

A single report indicated that trachoma could be relieved by placing five seed of the plant in each eye at night. The eyes were washed with clear water each morning (Moapa - P).

DYSSODIA THURBERI (A. Gray) A. Nels. Compositae

(S) ahn-dah-gah nut-tah-zoom.

The root decoction taken as a tea served as a physic (Beatty - P).

ELYMUS CONDENSATUS Presl Gramineae

(P) oh-hoe-buh wah-hava; sah-wah-havva; wah-havva.

(S) pay-wah-guave; wy-ron-zip. (E) rye grass.

The sharp edges of the leaf blades are employed to scrape granulated eyelids, in fact this was the old method of treating trachoma (Fallon, Ft. McDermitt, Lovelock, Owyhee, Reno, Wells, and Winnemucca - P & S). Of doubtful efficacy are washes for sore eyes prepared by either boiling or merely soaking the leaves (Fallon and Owyhee - P & S).

ENCELIOPSIS NUDICAULIS (A. Gray) A. Nels. Compositae

(S) anga-go-ahp (at Beatty and Lida); coo-see ah-kuk (at Tonopah).

Apparently the plant is not common in Nevada and for this reason the Indians are said to go to Hornsilver, a place near Lida, in order to secure material for their remedies. A tea from the boiled roots is taken for bloody diarrhea (Beatty and Tonopah - S), for venereal disease (Lida and Tonopah - S), and a tea from the boiled leaves is used for coughs (Beatty - S).

EPHEDRA NEVADENSIS S. Wats. Gnetaceae

(Moapa P) tu-tupe. (S) coo-see too-roombe.

(E) joint fir; Mormon tea; blue ephedra.

This species is employed almost entirely in the treatment of venereal diseases, the method being merely to drink a tea brewed from the twigs and branches (Moapa and Tonopah - P & S). At Tonopah no distinction was made as to the disease but at Moapa gonorrhea was specifically mentioned. At the latter locality the medicine could be compounded by boiling Gilia congesta with the Ephedra twigs. (See further under Gilia congesta and Larrea divaricata).

The tea was taken also as a stimulation for urination (Beatty - S) and the powdered twigs and branches were made into poultices for sores (Fallon - S).

EPHEDRA VIRIDIS Coville Gnetaceae

(P) soo-roop-ee; too-roop-ee; too-toop-ee. (S) too-roombe; too-toom-be. (W) mag-gel; mah-gah. (E) joint fir; Mormon tea; Indian tea.

In the treatment for syphilis one informant said that the small stems only were the ingredients of the tea (Fallon - S); for gonorrhea the dried twigs were mixed with the inner bark of Purshia tridentata to make a tea for drinking (Smokey Valley - S); while other remedies, not specifying which venereal disease, recommended a tea of the Ephedra twigs alone (Winnemucca - P), or the stems were mixed with Gilia aggregata (Austin - S).

'As a regulator for kidney, or sometimes bladder disorders, a steeped or boiled tea is prepared from the twigs or branches (Ely, Fallon, Hawthorne, Monitor Valley, Nixon, Schurz, and Tonopah - P & S). Usually no dosage was indicated but in a few cases the quantity of tea to be imbibed was said to be 'several cupfuls' a day.

For colds the same tea was recommended (Elko, Fallon, and Nixon - P & S) and in the first named locality it was said that the tea should be boiled down to a thick consistency before taking.

The tea is favored in nearly all communities as a tonic or blood purifier. In fact it is believed that the tea aids the circulation of the blood and for that reason is given to old people (Belmont and Fallon - P & S).

The tea is taken also for delayed or difficult menstruation (Dresslerville, Gardnerville, and Minden - W); for stomach disorders (Fallon, Lovelock, Schurz, and Winnemucca - P & S). For stomach ulcers the tea is drunk instead of water (Schurz - P).

In one community the tea is taken regularly as an aid in the

cure of rheumatism (Yerington - P).

As a physic the stems are boiled in salted water (Beatty - S) or sometimes only the roots are employed (Lida - S).

For childrens' diarrhea a warm tea is prepared by combining this plant with the scraped bark of Cercocarpus ledifolius (Reno - P & S).

The dried and pulverized stems are applied as a powder to cure sores (Nixon and Schurz - P & S) or the finely ground material may be mixed with the pitch of Pinus monophylla and used as a salve (Austin - S). For burns the powder is moistened slightly and functions as a poultice (Battle Mountain - S).

EQUISETUM spp. Equisetaceae

(S) bah-see-noo; kah-wah-quah-see. (E) horsetail rush.

The plant is boiled for about thirty seconds and the decoction taken for kidney trouble (Ely - S).

ERIGERON CAESPITOSUS Nutt. Compositae

(P) booie na-tizuah; kah-noop-ah.

The roots are boiled and the cooled solution employed as an eyewash (Fallon - P). Also the roots are boiled to make a strong red tea, and of this a cupful is said to be sufficient to stop diarrhea (Upper Reese River - P).

ERIGERON CONCINNUS var. APHANACTIS A. Gray Compositae

(P) dootsie tah-bah-she-up; too-bee-man-ob. (S) boo-ee nut-zoo. (E) brass buttons.

The whole plant is boiled and a half-cupful or less of the brew taken for stomach-aches and cramps (Ft. McDermitt, Schurz, and Tonopah - P & S), the function of the medicine apparently being that of a physic. However, there seemed to be no agreement among the Indians as to the degree of action produced by the decoction. Some claimed that the medicine was not a physic (Tonopah - S), others said it was only a mild physic (Schurz - P). On the contrary some individuals warned that the tea acted as a violent emetic and physic; and for this reason the remedy is considered as an appropriate treatment for chronic constipation (Hawthorne - P).

The decoction was used also as an eyewash, three drops at a time, repeated at intervals during the day (Peavine Creek - S).

ERIODICTYON ANGUSTIFOLIUM Nutt. Hydrophyllaceae

(Moapa P) wee-poo-en-ub. (S) wee-pah-got-um.

(E) mountain balm; yerba santa.

The leaves, or the young shoots, are brewed and the solution taken in small doses for colds and coughs (Beatty and Moapa - P & S); honey is sometimes added to the drink (Las Vegas - P).

The brew made from the leaves or tops is said to be an excellent expectorant and for that reason to be a suitable medicine for pulmonary troubles or early stages of tuberculosis (Las Vegas and Moapa - P & S).

The brew is a counteractive for vomiting and diarrhea (Moapa - P).

A brew of the boiled leaves is taken to relieve stomach-aches, and also as a drink in the cure of venereal disease (Beatty - S).

The young stems, the leaves, and flowers are boiled and the liquid used in hot compresses for rheumatic pains (Beatty - S).

ERIOGONUM MICROTHECUM Nutt. Polygonaceae

(P) pee-wee-guy-womb-mutz-zee. (S) ahn-ga-see-ga wee-ub; anga-kah-sah-rumba. (E) wild buckwheat.

The roots, and sometimes the tops, are boiled as a tea for treating tuberculosis (Beatty and Tonopah - P & S). At the latter town, it is claimed that this medicine is a definite cure for tubercular cough. To prepare the solution one first dries the roots and the tops and then boils a large quantity. Since the liquid keeps well, it is stored in bottles until needed. The patient must drink the solution instead of water and the treatment must continue steadily for as long as a year.

The stems and leaves are boiled for a tea to treat bladder trouble (Smith Valley - P).

The whole plant is used to prepare a boiled solution which serves as a wash or for hot compresses in treating lameness or rheumatism (Ely and Wells - S).

ERIOGONUM OVALIFOLIUM Nutt. Polygonaceae

(P) ya-paw-taw-the. (S) naka-donup. (E) butterballs.

A tea from the boiled roots is employed to cure colds (Fallon - P & S).

ERIOGONUM SPHAEROCEPHALUM Dougl. ex Benth. Polygonaceae

(P) ya-paw-taw-the. (E) sulphur flower.

The root decoction is used for colds (Winnemucca - P) and to stop diarrhea (Elko and Ft. McDermitt - P & S).

ERIOGONUM UMBELLATUM Torr. Polygonaceae

(P) na-ka-donip; wadda-a-goh. (S) bah-hoe-zee; naka-donup. (E) sulphur flower.

The leaves, sometimes combined with the boiled roots, are mashed for poultices which are used for lameness or rheumatism (Ely and Yerington - P & S).

A decoction of the roots is prepared and taken hot for colds (Beatty, Owyhee, and Summit Lake - P & S). The same solution serves also for stomach-aches (Nixon - P).

ERYNGIUM ALISMAEFOLIUM Greene Umbelliferae

(P) momono-kaiyu. (E) button snakewood.

The whole plant is steeped and taken as a tea for diarrhea (Owyhee - P). Apparently the plant does not have a wide distribution in the State, having been collected by us only once in Elko County.

EUPHORBIA ALBOMARGINATA T. & G. Euphorbiaceae

(S) nah-com-boot-zip. (E) spurge.

The whole plant is crushed and applied as a poultice on snake bites (Lida - S). The boiled plant furnished a tea to be taken as

a tonic for general debility (Lida - S).

EUPHORBIA ARENICOLA Parish — Euphorbiaceae

(Moapa P) tah-wee-carib. (E) spurge.

The plant is employed in medicinal remedies infrequently. Water from the boiled plant serves as an eyewash, and a poultice of the mashed plant is supposed to reduce swellings (Moapa - P).

EUPHORBIA POLYCARPA Benth. — Euphorbiaceae

(S) nah-comb-boh-zip; nah-wah-go bud-zip. (E) spurge.

The plant can be made into a tea drink as a tonic for any general, indisposed feeling or the solution can be used as an eye-wash (Beatty - S).

EUROTIA LANATA (Pursh) Moq. — Chenopodiaceae

(P) boo-see-ah-wah-be; she-shu-bah. (S) shee-shub; tuh-veep. (E) white sage; winter fat.

In early times a hot solution made from this plant was used by the Indians to rid their hair of lice, in fact one of the Paiute names, 'boo-see-ah-wah-be' means - 'head lice plant'. As a matter of fact the boiled decoction is employed still as a hair and scalp tonic (Battle Mountain, Beowawe, Ely, Fallon, and Yerington - P & S). There is a belief that this treatment will prevent or check falling hair (Tonopah - S), or even that constant use of the liquid would act as a hair restorer in baldness (Beatty-S), and also that it prevents the hair from turning gray (Schurz - P).

The solution prepared from boiled leaves, or from stems and leaves, was deemed beneficial for eye soreness, either as a wash or in the form of a compress (Ely and Reno - P & S).

FORSELLESIA NEVADENSIS (A. Gray) Greene Celastraceae

(S) bas-un-dook nut-zoo.

This plant was recognized by one Indian, who said that his mother had used it some forty years ago to cure a number of Smokey Valley Shoshones suffering from the early stages of tuberculosis. The shrub is boiled and the decoction given as a tea in doses of several cupfuls daily over a long period of time (Round Mountain - S).

So far as our experience goes this is the only record of the plant being utilized by Nevada Indians. However there were other Indians who recognized the plant. For instance Maggie Jack, of Manhattan, had seen the plant growing along a trail leading to South Twin River and she had heard of its use as a tuberculosis medicine. Long Haired Bill, of Monitor Valley, said that the Shoshones of Death Valley in California employed the decoction regularly to treat tuberculosis.

FRASERA ALBOMARGINATA var. INDUTA (Tidestr.)Card Gentianaceae

(no name known)

The roots are boiled to make an eyewash (Beatty - S).

FRASERA SPECIOSA Dougl. Gentianaceae

(S) coo-see div-oh-savva. (E) deer's tongue.

The Shoshone word 'div-oh-savva' more properly belongs to Varatrum californicum, a plant having reputed contraceptive properties. In fact the literal meaning of the word is 'sterile' or 'childless woman'. The Indians offer no explanation for applying the name to the Frasera, unless it be due to a fancied resemblance between the two plants.

The decoction of the Frasera roots is taken as a tonic for any general weakness or feeling of illness. The dose is said to be a half-cupful taken 'once in a while.' (Manhattan - S).

GILIA AGGREGATA (Pursh) Spreng. Polemoniaceae

(P) pah-wah-gopish; para-give; soh-noy tah-cun-oh-quah.

(S) enga-mo-wanya; enga-mutz-oh-y-newie; tem-piute; tin-ah-piute. (E) scarlet gilia; timpiute.

The Paiute word, 'soh-noy tah-cun-oh-quah' means - 'little bird food', while the Shoshone 'enga-mutz-oh-y-newie' means - 'red flowers hanging down on each side of stem'. For this reason it may be that neither is to be considered as a specific Indian name for this particular plant.

An amusing sidelight to be noted is that practically all of the Shoshones, when questioned, recognized this plant immediately as 'the big Paiute bad disease medicine', while on the other hand scarcely any of the Paiutes would admit that they had ever seen the plant or that it had any use.

By far the principal employment of the plant, in the Shoshone

communities at least, is for the treatment of venereal diseases, both gonorrhea and syphilis being mentioned in this connection. The whole plant is boiled for the purpose and the solution can be taken as a tea or used as a wash. The Indians agreed that a long period of treatment was necessary to effect a cure. The dosage, when indicated, varied from a half-cupful three times daily (Upper Reese River) to a half-cupful once a day (Peavine Creek). See also under Ephedra viridis.

Both Paiutes and Shoshones, throughout the State, use the plant as an emetic and physic. For this purpose the whole plant, or sometimes the root only, is boiled to make the tea. A half-cupful was the usual dose.

Scattered reports indicated that a brew from the whole plant was taken as a blood tonic (Austin and Upper Reese River - S), a drink for colds was prepared from boiled roots (Nixon - P), or a decoction of the whole plant was a disinfectant wash for the itch (Upper Reese River - S).

The whole plant is crushed and made into a poultice for rheumatic aches (Lida - S).

As a medicine to induce vomiting, see under Aquilegia formosa.

GILIA CONGESTA Hook. Polemoniaceae

(P) quoy-hee nooma natiz-u-ah. (S) bas-oh-nup; be-he-vah; bee-ah-du-hu; bee-hee-vah; hoe-ni; hoo-na; hoo-ni; sah-tone-zee; sah-tone-zee-yung. (W) wem-see.

From the data secured it would appear that this is a plant employed predominantly by the Shoshones, there being but two reports from the other tribes. During the interviews, about half of the Shoshones indicated that a decoction of the plant was taken as a blood tonic, or as many of them expressed it - 'to clean the blood'. There is reason to believe that in these cases the answers were dissimulative due to modesty. In other words, these people were ashamed to say frankly that the decoction was used for venereal diseases. The experience with one family in Ely would tend to prove this point because upon meeting them the first year as strangers, they gave the stock answer - 'to clean the blood' in describing the medicinal properties of the plant, but in the second encounter with the same people they admitted that the members of the colony employed the plant in the treatment of venereal diseases.

In five localities the treatment was mentioned definitely in relation to gonorrhea (Austin, Elko, Moapa, Smokey Valley, and Tonopah - P & S), and at Moapa the informant remarked that the medicine would not serve for syphilis. The data from the remainder of the localities were not specific and indicated the treatment to be merely for venereal disease (Beatty, Monitor Valley, Owyhee, Round Mountain, Tonopah, and Upper Reese River - S).

Ordinarily the treatment consists of drinking the decoction but usually no exact dosage was indicated. One Indian said that the drink should be taken a half-cupful at a time over a long period (Upper Reese River - S), while another remarked that often the twigs of Ephedra nevadensis are added to the brew in order to

lessen the disagreeable flavor of the medicine (Moapa - P). The same man went on to say that the tea must be taken hot but that the patient must lie down afterward to prevent nosebleed and also so that the medicine not act as an emetic. According to still others the plant can be mashed with raw Penstemon deustus and applied as a wash to dry up gonorrhea (Smokey Valley - S); or the plant alone, mashed to make a poultice, will heal venereal sores or eruptions (Elko - S).

All of the Indians employ the plant as a physic and emetic, in fact it may be that these are the properties of the medicine which are utilized in the relief of a number of disorders, such as colds, diarrhea, indigestion, and stomach trouble.

The decoction was mentioned specifically in treating influenza (Reese River and Smokey Valley - S), one Indian claiming that it was a better medicine than that prepared from Leptotaenia multifida. He said the dose was a cupful at a time taken two days in succession.

The decoction was taken for liver trouble (Ruby Valley - S) and for kidney complaint (Ely - S).

For dropsy the tea was drunk and poultices of the crushed plant applied (Dresslerville - W).

The boiled decoction, or sometimes the cold water infusion, also served as an eyewash (Beatty and Upper Reese River - S). The decoction is considered to be beneficial as an antiseptic wash for wounds, cuts, bruises, pimples, and sores (Austin, Beatty, and Smokey Valley - S). An outstanding case was cited as an example in which the patient had been afflicted for two years with chronic

ulcers. It was claimed that a cure was completed in a month by external and internal treatments with the decoction, alternating with short exposures to sunshine (Austin - S).

The plant is boiled, drained, mashed and used as a plaster for erysipelas, especially of the face (Upper Reese River - S). Poultices of the raw, crushed plant aid the healing of back sores of horses (Elko - S).

GILIA EREMICA var. ARIZONICA Craig — Polemoniaceae

(P) eck-quee-hu-binga.

The steeped plants are employed as a tea for tuberculosis of children (Nixon and Reese River - P).

GILIA EREMICA var. ZIONIS Craig — Polemoniaceae

A single report indicated that the plant decoction was taken as a stomach medicine and to stop diarrhea (Summit Lake - P).

GILIA FILIFOLIA var. SPARSIFLORA (Eastw.) Macbr. — Polemoniaceae

(P) sigh-yah-gava; si-yah-gum; too-bee man-a-ba; too-bee too-ben-aba; too-man-aba. (S) din-ah-ee-goom; duh-na-ee-go; duh-nah-eye-go.

Paiutes and Shoshones in general recognize this plant as the one employed in making the decoction which is taken either as a physic or emetic. Apparently the medicine has a drastic action and for this reason the dose is usually indicated to be less than one-half a cupful.

Aside from the purpose mentioned above there were only two other remedies mentioned; the decoction was taken as a drink for venereal disease (Tonopah - S) and Johnnie McCann claimed that the boiled plants used as a tub bath would relieve rheumatic pains (Upper Reese River - S).

GILIA PUNGENS (Torr.) Benth. Polemoniaceae

(S) duh-nah-eye-gum; tin-ah-ee-go.

Our data would show that only a few Shoshones know this plant and that it is employed only as a wash for swellings or soreness of the eyes. Two said that the whole plant was boiled for this purpose (Austin and Beatty), while two others specified a decoction of the roots only (Fallon and Tonopah). One prepares a cold water infusion by merely soaking the roots and stems (Lida).

GRINDELIA SQUARROSA var. SERRULATA (Rydb.) Steyerm. Compositae

(P) oha tonega; sah-nah tonegan. (S) sah-nah cav-oh-no-ah; sah-nah-goop-ah-rah; woh-ah-gum. (E) gum plant.

There is another species, Grindelia nana Nutt., which occurs in the State together with the one named above and apparently the Indians do not distinguish between the two and employ both indiscriminately in their remedies.

The plant decoction, according to a number of Indians, was of value in curing smallpox; the doses were small but were taken regularly every day (Elko and Ruby Valley - S). At the latter place, it was specified that the dose should be one teaspoonful, three

times a day.

The dose for measles, was less than a half-cupful, three times daily (Ruby Valley - S).

In the treatment for venereal disease the same solution was indicated although the amount to be taken varied from 'small doses' to a half or two cups daily (Elko, Ruby Valley, and Wells - S). Most of the people explained also that in the case of this disease, a long period of time was required for the treatment.

For pneumonia it seemed that the younger, more resinous, portions of the plant were preferred for the decoction (Fallon and Owyhee - P). The dosage was said to be less than a half-cupful, taken hot.

The decoction is said to be a good expectorant and for this reason is popular as a cough medicine (Elko, Owyhee, Ruby Valley, and Tonopah - P & S).

The tea is taken also as a remedy for several other disorders; for bladder trouble (Elko and Owyhee - P & S); for stomach-ache or as an emetic (Lida and Wells - S).

A poultice of the boiled plant serves for swellings (Ruby Valley - S). In the same community was cited the case of a patient with a broken leg bone. Warm poultices were applied on the wound, being changed every day for four weeks. Also the solution in which the plant had been boiled was used as an antiseptic wash to aid in the healing.

GUTIERREZIA SAROTHRAE (Pursh) Britt. & Rusby Compositae

(S) see-gupe; too-goot-se-ooh-goope; toom-bee-see-bupe.

(E) snakeweed.

The Indian word 'see-gupe', in its variable spellings, is a general term applied to several shrubby plants with yellow flowers, such as Chrysothamnus or Tetradymia.

One informant used the boiled leaves, wrapped in a cloth, as a poultice for sprains or rheumatism. It was said that the application created enough heat to burn the skin (Summit Lake - P).

There was one report that the decoction of the plant could be taken as an aid in curing a cold (Austin - S).

As an antiseptic wash for measles the plant was boiled with finely cut needles of Pinus monophylla (Austin - S).

To stop a nosebleed, one Indian claimed that the boiled leaves, applied in a wet cloth to the top of the head, would suffice (Nixon - P).

HEDEOMA NANA (Torr.) Briq. Menthaceae

(E) pennyroyal.

One Indian made a drink from the boiled plant as a physic and for indigestion (Beatty - S).

HELIANTHELLIA UNIFLORA (Nutt.) T. & G. Compositae

(P) ah-kuh. (S) ah-kuh; ah-kuk. (E) little sunflower.

The word 'ah-kuh' is applied to other sunflower-like plants with large, edible seed.

The root only is employed, usually as a poultice. In one case the mashed substance was heated on the stove and applied hot for swellings and sprains (Fallon - P). In another the substance was

used without heating as a counter-irritant for rheumatism of the shoulder or knee (Deowawe - S).

A cold water infusion of the mashed root when used as a wash or in a cold compress gives relief from headache (Austin - S).

HELIANTHUS ANNUUS L. Compositae

(P) bah-kuk. (E) common sunflower.

In a single instance the root decoction was reported to be employed as a warm wash for rheumatism (Smith Valley - P).

HELIOTROPIUM CURASSAVICUM var. OCULATUM (Heller) Tidestr. Boraginaceae

(P) tube-manabe; tu-ma-nabe. (S) i-yah-oh-ho; i-yah-oh-ho; tu-man-ah-be. (E) heliotrope.

Anna Downington, a Paiute of the Reno colony, said that the word - 'tube-manabe' meant - 'growing among rocks' and that probably it was not the real Paiute name for the plant.

In one locality a number of Indians were in agreement that a decoction of the plant was administered as a tea in case of retention of urine (Beatty - P & S). Two informants specified that only the roots were to be used. Only small quantities of the potion are needed and it is said that the action is quite rapid.

One Indian woman boiled only the tops of the plant to make a potion which is believed to be an aid in measles by bringing out the skin eruptions (Lida - S).

One family claims that the boiled solution can be administered for venereal disease (Beatty - S).

The root decoction was reported once as a gargle for sore throat (Beatty - P & S).

Emetic properties also are assigned to the decoction in some communities (Beatty, Fallon, Schurz, Winnemucca, and Yerington - P & S).

HERACLEUM LANATUM Michx. Umbelliferae

(P) bee-ah-bogo; dotse-toneg-e-ga; pi-yah-pah. (S) be-ah boh-quah; boh-quah. (W) comb-ho. (E) cow parsnip.

In the few sources of data relative to this plant there were only two in which the remedy was the same. Members of two different tribes treat toothache by inserting pieces of the raw root in tooth cavities to stop the pain (Austin, Dresslerville, and Gardnerville - S & W).

For sore throat the raw root was mashed, soaked in water, and the infusion used as a gargle and the mashed root substance was applied as a poultice around the throat (Austin - S).

A method of preparing a remedy for coughs and chest colds consisted of burning whiskey in a saucer to remove the alcohol, then boiling it with roots of the plant and taking the decoction as a tea. For head colds there was recommended the inhalation of smoke from roots, mixed and burned with the pitch of Pinus monophylla (Austin - S).

Other scattered data indicated that a half-cupful of the root decoction as a tea would stop diarrhea (Gardnerville and Dresslerville - W), or that the same decoction, if taken over a long period

of time, would cure tuberculosis (Round Mountain - S), that the mashed roots served as a poultice for rheumatism (Winnemucca - P), and that a salve made from the root would aid in healing wounds (Owyhee - P).

HERMIDIUM ALIPES S. Wats. Nyctaginaceae

(P) he-wov-bee; hewovey. (E) four-o'clock.

This is employed commonly by the Paiutes in the treatment of headaches; in fact, the remedy name applied by them to the plant is 'spee-ge-nooma na-tiz-u-ah' meaning - 'headache medicine'. The usual method consists in using the hot or warm water from the boiled root as a wash for the head (Fallon, Schurz, and Yerington). Only two individuals claimed that the solution could be given as a tea for headaches (Fallon and Schurz). In these same two communities an additional aid for curing headaches consisted in making compresses or poultices of the fresh crushed leaves to bind on the head.

The root solution was employed as a wash on the face and head for delirium (Reno) and to relieve neuralgia (Fallon). For fainting spells, dizziness and nausea the wash could be applied externally to the head or a half-cupful of the solution administered as a tea (Schurz).

For healing purposes the peeled roots were dried, pulverized, and the powder applied dry to sores (Reno and Yerington), made into a paste for burns (Hawthorne), or into a wash for impetigo (Schurz).

The mashed leaves are sometimes made into poultices for swellings (Schurz).

A single report indicated that less than one-fourth cupful of the solution from boiled roots would act as a physic (Fallon). Apparently the Shoshones are addicted to physic medicines while on the contrary the Paiutes appear to use such remedies infrequently.

HEUCHERA RUBESCENS Torr. Saxifragaceae

(S) toya-dimba-wah-rumb; zee-guoy. (E) alum root.

The two names given above were not used by three of the groups from whom data was secured; instead, they knew the plant by the term - 'be-ah nut-zoo' which signifies merely - 'big medicine'. This is rather curious because ordinarily if a plant is not called by its own name the Indian substitutes one of the specific remedial terms.

A tonic from the boiled roots is used a great deal in some families for general systemic debility (Elko - S), sometimes even being prepared in quantity and bottled. The dose is a half-cupful every day.

According to one report the root decoction is quite effective in reducing high fevers (Round Mountain and Smokey Valley - S). The dose is a half-cupful given three times daily.

There were two reports of the root decoction being taken as a cure for venereal disease, the dose in one case being a half-cupful each morning (Hawthorne and Manhattan - P & S).

The boiled root decoction in one instance was taken as a tea for heart trouble (Beatty - S).

A cold water infusion from the soaked roots served as an eye-

wash (Fallon - P). The same cold water infusion was taken in an unspecified amount to stop diarrhea, and in 'small doses' for several days to relieve liver trouble or biliousness (Beowawe - S).

Soaked roots were given to horses and cows for cramps (Beowawe - S). A wash for saddle sores on horses was made from mashed and boiled leaves (Tonopah - S).

HOLODISCUS DISCOLOR var. DUMOSUS (Nutt. ex Hook.) Dip. Rosaceae

(P) oh-na-nut-tiz-u-wabbe; tah-see-vuh; wah-poose-ch-guay.

(S) tot-zip; toya-huhnabbe. (E) rock spirea.

In the treatment of venereal disease, one informant recommended that a cup of the decoction from boiled leaves be taken three times a day (Manhattan - S) while another varied by using only the stem decoction, the dose being less than a half-cupful daily (Smokey Valley - S). In both cases the treatment needed a long period of time.

A decoction made from the leaves and stems was taken as a dose of a half-cupful for stomach-aches (Smokey Valley - S), or a decoction of the boiled roots as a remedy both for stomach disorders and to stop diarrhea (Nixon - P). However, a half-cupful of decoction from the leaves acted as an emetic (Round Mountain - S). Tea from boiled stems helped to cure colds (Mason Valley - P).

One woman prepared an antiseptic wash for external purposes by boiling together leaves, flowers and upper stems (Lida - S). She also employed the solution internally to treat a vague condition arising from an undefined cause. The feeling was that of internal organs having swollen thus causing such symptoms as shortness of

breath and the inability to bend over or to lie down. For this condition the tea was taken in doses of one-half to a full cup, three times a day for a week.

HYPERICUM SCOULERI Hook. Guttiferae

(P & S) andra-vitch-gwanna. (E) St. John's wort.

All but one of the remedies obtained from this plant were for external applications. In two communities the water from boiled plants was used as a bath for aching feet (Eureka and Wells - P & S).

As a healing agent for sores, or to reduce swellings, the boiled plant was applied direct or as a poultice (Ruby Valley and Wells - S); for cuts or bullet wounds the dried plant was pulverized and applied as a powder (Upper Reese River - S).

The dried root was kept at hand, in one household, as a toothache remedy but the manner of application was not revealed (Beowawe - S).

As a remedy for venereal disease a tea was prepared from the tops and taken in doses of less than a half-cupful daily over a long period of time (Ruby Valley - S).

IRIS MISSOURIENSIS Nutt. Iridaceae

(P) pah-see-toob-ah; poo-gocey-roop; poo-gooey-rub.

(S) pah-sag-ee-dah; pah-sag-ee-duh; pah-sag-e-dump; pah-sag-gee-gee; sag-e-dump. (E) wild iris.

The most extensive use for this plant is as a toothache remedy being so reported from most of the Paiute and Shoshone communities.

The usual procedure was merely to insert entire pieces, or a portion of the pulped, raw root directly in the tooth cavity, but some of the people said that the pulped root would serve just as well if placed against the gum.

Information secured during the first year of this work included statements from several Indians that the root decoction was a specific remedy for gonorrhea (Austin, Elko, Ft. McDermitt, Owyhee, and Ruby Valley - P & S) but the data was not subsequently verified, the nearest approach being a single record in which the pulped root was applied as a salve on venereal sores (Stillwater - S).

For bladder trouble the roots were boiled to produce a whiskey-colored liquid, with a bitter taste, but no dosage was indicated (Ft. McDermitt and Stewart - P). The only other internal remedy employing the decoction, was for stomach-aches, less than a half-cupful being drunk as a warm tea (Ruby Valley and Winnemucca - P & S).

To cure earaches a little of the boiled root solution was dropped, a small quantity at a time, into the ear. The liquid was applied luke warm (Fallon and Ruby Valley - P & S).

There was a single instance of treating rheumatic pains with a poultice of the mashed roots (Manhattan - S).

The seed though generally considered to be poisonous, were administered as a paste to sores (Smith Valley - P) and to burns (Battle Mountain - S). In both cases ripe seed were specified.

IVA AXILLARIS Pursh — Compositae

(P) quee-duh-tee-nava; too-ha-babba. (S) du-du-zip; too-du-zip. (E) poverty weed.

From this very common weed, the Shoshones secure one of their favorite remedies for stomach-aches or cramps (Battle Mountain, Belmont, Beowawe, Eureka, Round Mountain, Ruby Valley, and Wells - S). It is recommended especially for young children. The solution is prepared variously, by boiling or steeping the whole plant, only the roots, or leafy stems. Although the dosage was not always indicated, it was sometimes said to be a half-cupful, or a small or a weak dose.

The same decoction was an important remedy among most of the Shoshones in treating diarrhea, the dosage being much the same as that indicated for stomach-aches. In addition the tea was mentioned twice as being suitable for curing children's colds (Eureka - S).

According to one report the root can be eaten raw, roasted or boiled for indigestion (Round Mountain - S).

The Paiutes, apparently, favor the plant for external purposes only and even then infrequently. The leaves alone are utilized: mashed as a plaster for sores, boiled as a wash for sores and skin irritations, or they may be rubbed vigorously on rashes and itches (Lovelock and Schurz - P).

JUNIPERUS COMMUNIS var. SAXATILIS Pall. Pinaceae

(Moapa P) pah-wap-o-ruitz. (P) dootsie pah-wap-pee; wah-pee. (S) mah-hav-wa. (E) alpine juniper.

It is said that the young growth from the ends of the branches, when boiled, produces a reddish liquid. This is taken as a potion in small quantities as a blood tonic (Beatty - S).

The solution from boiled twigs is taken as a cold tea for venereal disease (Moapa - P).

In one family the fruits are dried, the fleshy outer portion discarded, and the seed eaten every day as a blood tonic, and especially for lumbago (Schurz - P).

JUNIPERUS MONOSPERMA (Engelm.) Sarg. Pinaceae

(P) wah-pee. (S) sah-mah-be. (E) one-seeded juniper.

A remedy for colds is prepared by boiling one cup of the young twigs in a quart of water. The solution is drunk freely. In addition fumes from burning branches may be inhaled (Reno - P & S). The same two tribes in this vicinity are known to relieve the discomfort of measles by rubbing heated twigs on the eruptions.

JUNIPERUS OCCIDENTALIS Hook. Pinaceae

(P) wah-pee; wah-puee. (S) sah-mah-be; sam-ah-bee.

(W) puh-ahl. (E) western juniper.

See under Juniperus utahensis.

JUNIPERUS SCOPULORUM Sarg. Pinaceae

(P) bah-sah-mabe; bas-um-ah-be. (E) rocky mountain red cedar.

A single report indicated that the terminal twigs were boiled to make a tea. This was taken internally in the usually indicated dosage of less than a half-cup daily over a long period for venereal disease (Elko - S).

JUNIPERUS UTAHENSIS (Engelm.) Lemmon Pinaceae

(P) wah-pee; wah-puee. (S) sahn-ah-poh; sam-ah-bee.

(W) puh-ahl. (E) Utah juniper.

This species of juniper has a wide distribution in Nevada and is the one most commonly encountered. Where the other species coincide in range with this one it is apparent that the Indians do not always distinguish among them. At any rate the Indians names and the remedial applications are much the same for all the species. With this in mind it is to be assumed that the data presented in this report under Juniperus utahensis can apply equally to J. occidentalis.

The Shoshones and Paiutes are partial to this plant as the basis of cold and cough remedies. Usually a tea is made simply by boiling the young, terminal twigs but there were some variations, such as adding the berries to the brew (Ruby Valley - S) or even using the boiled berries only (Fallon - P), and one report suggested the use of green fruits (Stewart - P). According to one report the leaves were smoked and the fumes inhaled for head colds (Summit Lake - P). For other admixtures see under Artemisia tridentata, Pinus monophylla, Salvia carnosa, Tetradymia comosa and Wyethia mollis.

The decoction of young twigs serves also for a number of other ailments. It is taken internally as a tea for a blood tonic (Schurz - P), as a general tonic (Elko and Wells - S), as a hot tea for hemorrhages (Fallon - P), to reduce fevers (Smith Valley - P), for stomach-aches (Mason Valley and Smith Valley- P), for kidney trouble (Elko - P & S), and for influenza (Mason Valley - P). For

this last disease see also Leptotaenia multifida. For smallpox and kidney ailments see under Dalea polyadenia.

A plain twig decoction was given for venereal disease (Battle Mountain and Fallon - P & S) but one remedy was made by boiling the resin of either Pinus monophylla or Abies concolor with the cracked juniper berries (Schurz - P).

A cold water infusion of finely ground terminal twigs was strained, and the solution taken internally to rid the alimentary tract of worms (Elko - S).

The finely ground twigs, also, were heated over a fire and bound in a hot cloth against the neck for a sore throat. The material was reheated from time to time (Smokey Valley - S).

In a similarly prepared treatment, the leaves were pounded up, moistened and tied in a cloth with a hot rock. This was held to the jaw for swollen and sore gums, or for toothaches (Beatty - S).

Other external remedies utilizing the twigs were reported. A strong solution of the boiled material was esteemed as an antiseptic wash for measles and smallpox (Battle Mountain and Monitor Valley - S) or for sores (Lovelock - P). The mashed young twigs were made into poultices for burns (Ruby Valley - S), and for swellings (Austin and Eureka - P & S), or the same material when boiled served as a poultice for rheumatism and the cooled solution used as a wash (Schurz - P).

In a number of settlements the branches (or once the berries only) were burned as a fumigant after illness (Dresslerville, Fallon, Gardnerville, Monitor Valley, and Upper Reese River - P, S & W).

The fumes from burning twigs, when inhaled, were believed to

clear up headaches and colds (Dresslerville, Fallon, and Gardnerville - P & W).

For treatment of boils see under Pinus monophylla.

The preparation of the Indian sweat bath was described by individuals in two localities. In this instance the treatment was recommended for rheumatism or heavy colds. A fire was kept burning in a specially made excavation until the ground became heated. The fire was then raked out and replaced with a layer of young juniper twigs. The patient reclined on top and was covered with blankets to induce sweating (Nixon and Schurz - P).

The root of the plant was mentioned but once and in that instance it was said that the dried material was shaved finely and boiled as a tea to be taken for venereal disease (Schurz - P).

The boiled berries were taken as a tea for kidney ailment, and especially to induce urination (Lovelock, Reno, Ruby Valley, and Stewart - P & S). The method of preparation, as described in one of these reports, consisted in boiling nine berries in a quart of water. The dose was a half-cupful three to four times a day. In one remedy the green berries were recommended for making the tea. See also under Pinus monophylla.

The liquid from the boiled berries had other uses too. The cold tea, in doses of less than a half-cupful a day for a week, was a blood tonic (Fallon - P), a cupful daily was taken for heart trouble (Tonopah - S), less than a half-cupful was given for menstrual cramps (Smith Valley - P). For rheumatism the berries were boiled in a small amount of water and the tea taken several times a day; and the solution was applied also as hot packs to the afflicted

parts (Hawthorne - P).

KRAMERIA GRAYI Rose & Painter Leguminosae

(Moapa P) nah-kah-vah dah-tohnub. (S) nah-gee too-nah-nib.

Only the root is used. It can be boiled and the decoction employed as a wash or, when dried and pulverized, applied as a powder to sores (Moapa - P).

The root is ground and made into a cold water infusion as a wash for swellings (Beatty - S) and also for gonorrheal sores and gonorrheal eye infections (Las Vegas - P). An Indian at this last named town also claimed that the decoction could be taken internally for gonorrhea.

LARREA DIVARICATA Cav. Zygophyllaceae

(Moapa P) yah-temp. (S) ya-temp. (E) creosote bush.

This shrub, occuring commonly in the southern part of Clark County, is the most favored source of remedies by the local Indians.

At Beatty, the Shoshones drink a tea from boiled leaves for venereal disease, for colds, and to stimulate urination.

At Moapa, the Paiutes consider the plant to be a cure-all. For rheumatism the leaves are soaked in water and the liquid used in the form of a bath or wash, and the same procedure serves for chicken pox. A tea from boiled leaves is taken internally for colds and for bowel cramps. For sores the leaves are dried, pulverized and then sprinkled on as a powder.

At Moapa also, some of the Paiutes boil the leaves of the plant

with Ephedra nevadensis to make a tea which is taken internally for gonorrhea. The same decoction, but more condensed, is mixed with badger oil to make a slave for burns. It is said to aid in the formation of the new skin.

LEPTOTAENIA MULTIFIDA Nutt. Umbelliferae

(P) toh-aw-sav-ve; toh-sa; toh-sah-ah; toh-sup.

(S) toh-aw-sa-ve; toh-sah; toh-sup. (W) dosa; doza.

(E) cough root; Indian balsam.

For the preparation of medicinal remedies this plant is by far the best known in the State of Nevada, being used both by the Indians and the whites. All Indian communities endeavor to maintain a stock to last through the winter months, for which purpose the root is peeled, sliced and laid away to dry. A number of years ago it was possible to purchase in local drugstores a commercial preparation of the plant under the name of 'Balsamea'.

Of all the ailments to which the Indian is heir, probably there is none which has not been treated in one way or another by remedies prepared from the root of this plant. Although considered universally as a panacea, the medicines most commonly used are for coughs and colds, and disorders such as hayfever, bronchitis, influenza, pneumonia, and tuberculosis. The more generally used remedy for such ailments is prepared by merely boiling the dried root and administering the decoction as a tea. A favorite method for relieving congestion of the lungs or of the nasal passages, and also for asthma, is to smoke the pulverized roots (sometimes mixed

with tobacco) in cigarettes or in pipes. See also under Nicotiana attenuata. Another method is to inhale the fumes of the root which is burning in a bed of live coals. Some people attempt to improve this type of remedy by mixing the root with parts of other plants; for instance in the preparation just described, it is customary sometimes to add resin of Pinus monophylla to the burning roots (Austin and Summit Lake - P). In this connection, a Paiute at Austin, said that the pitch is mixed with the finely cut root and then thrown into a bed of live coals. The patient arranges a cloth over his head and leans over the burning material to inhale the fumes.

Frequently raw pieces of root are chewed for sore throat.

The root segments of the Leptotaenia are mixed with those of Osmorhiza occidentalis and boiled to make a decoction which is taken as a tea for colds (Elko, Ruby Valley, and Smith Valley - P & S), for sore throat (Yerington - P), for pneumonia (Elko and Ruby Valley - S), and for influenza (Battle Mountain - S). In another combination they are boiled with young, terminal twigs of Juniperus utahensis to make a tea for influenza (Manhattan - S). Also for influenza see under Chrysothamnus viscidiflorus. For colds and pneumonia see also Artemisia tridentata.

A treatment for gonorrhea suggests a combination of the Leptotaenia roots with plants of Achillea lanulosa. They are boiled together and the liquid taken as a tea (Ft. McDermitt - P). There were other similar treatments for unspecified venereal diseases: the Leptotaenia root alone was boiled to make a tea (Lovelock and

Wells - P & S), or boiled with roots of Osmorhiza occidentalis (Fallon - P), or the fresh roots were boiled with those of Rumex venosus (Nixon - P). This last was claimed to be an unfailing cure.

The root is also the basis of a number of antiseptics. The decoction can be employed as an external wash for smallpox (Duckwater - P & S) and sometimes the leaves also are added to the brew (Ely - P & S). As a healing agent for skin rashes, cuts or sores the decoction of the boiled root may be used as a wash (Mason Valley - P) or the raw root may be pulped and applied directly for cuts (Winnemucca - P), or even the freshly cut slices may be placed on sores and then dusted with a fine red earth known as 'pee-sha-pee' (Reno - P). In still other communities the oily sap from the sliced fresh roots is carefully gathered and used on cuts and sores (Dresslerville, Gardnerville, Nixon, and Reno - P, S & W) or if fresh roots are not available the dry roots are boiled and the oil skimmed from the surface of the water.

This same oil is employed for trachoma or gonorrheal infections of the eye, using one drop of the oil in each eye (Elko - S).

Formerly in some communities the fresh root was ground to a pulp and applied to the severed umbilical cords of new-born babies (Dresslerville and Gardnerville - W).

For swellings, sprains or rheumatism the crushed root, raw or boiled, can be utilized as a poultice and sometimes, as an additional measure, the water from the boiled root served for a wash (Reno, Owyhee, and Smith Valley - P & S).

A number of different settlements cure distemper of horses with this root (Elko, Ely, Nixon, Schurz, and Tonopah - P & S). Ordinarily the method is to run the horse to accelerate the breathing, then the animal is forced to inhale fumes from the burning roots by placing the smoldering material in a bucket and covering the horse's head with a cloth, or better yet, to employ a nosebag. Some of the Indians amplify the remedy by adding parts of other plants, such as roots of Angelica breweri, or resin of Pinus monophylla (Elko - S).

LEUCOCRINUM MONTANUM Nutt. Liliaceae

(P & S) see-goo-ah-gump. (E) sage lily; sand lily.

Only one individual was encountered who knew a remedial application of this plant. According to him the roots are ground to a soapy consistency and placed directly on sores or swellings (Owyhee - P & S).

LIBOCEDRUS DECURRENS Torr. Pineceae

(P) pah-wah-pee. (E) California incense cedar.

There was secured but one report of a remedy and that of a rather dubious efficacy. Some families are said to make a tea from the boiled twigs and bark, this being taken as a protection against infection from any contagious disease such as smallpox (Reno - P).

LIGUSTICUM FILICINUM S. Wats. Umbelliferae

(P) wadda-e-gopa. (E) lovage.

It was rather obvious that the Indians do not always distinguish between this and other closely related plants. Even the Paiute name 'wadda-e-gopa' meaning - 'chipmunk tongue' is assigned to at least three different plants.

According to Anna Downington, a Paiute woman of the Reno Colony, the root of this plant can be made into a cough remedy.

LINUM LEWISII Pursh — Linaceae

(P) booie-ah-nooma; booie na-tizuah; po-eena-tiz-uah.

(S) boo-ee nut-tah-zoom; boo-ee nut-zoo; boo-eep nut-zoo; poo-ena nut-tiz-zooh. (E) wild flax.

This plant is known to the Paiutes and Shoshones throughout the State as the source of a remedy to treat sore eyes, in fact, some of the names usually applied to the plant mean, when translated, 'eye medicine'. There are various methods for preparing the eye wash: the whole plant is mashed and soaked in cold water (Elko - S); the whole plant is boiled (Ely - P & S); the tops of the plant are soaked in cold water (Fallon - P); or the tops are steeped slightly (Smith Valley - P); the leaves may be boiled (Summit Lake - P) or only steeped (Stillwater - S); and finally, only the boiled roots are employed (Beatty - S).

Another remedy, also rather generally known, consists in making poultices of the crushed fresh leaves to reduce swellings (Ft. McDermitt, Owyhee, and Summit Lake - P & S). According to one report both the stems and leaves are employed for this purpose (Winnemucca - P).

Poultices were especially employed for goiter (Summit Lake - P) and for gall trouble (Austin - S). At Austin it is claimed that the plant is used for this purpose only, the poultice being applied externally over the region of the gall bladder. The Shoshones here call the plant 'boo-eep nut-zoo' meaning - 'gall medicine'.

LITHOSPERMUM RUDERALE Dougl. Boraginaceae

(S) nem-ish-aw; nem-ish-aw. (E) gromwell; stoneseed.

Among most of the Shoshones the root of the plant is a favorite remedy for diarrhea. For this purpose the root may be boiled or soaked in water. The potion is considered to be especially helpful in stopping bloody diarrhea.

In one settlement it is believed that the plant has contraceptive properties (Owyhee - S). It is said that the cold water infusion from the roots, taken daily as a drink for a period of six months, will insure sterility thereafter.

LUPINUS spp. Leguminosae

(P) quee-duh-kwana. (S) quee-duh-quen-ah.

(E) lupine.

Data was secured from only two places and in both the plant was employed as a remedy for failure in urination (Beatty and Owyhee - P & S).

LYGODESMIA SPINOSA Nutt. Compositae

(P) i-goon-zon-um; pee-ee-ah-gub; see-ko-pe; too-man-abbe;

too-wan-oo-pah. (S) tah-be-sen-a-goh; tin-ah-ee-go.

(W) wa-ha-nane. (E) Indian gum plant; skeleton weed.

This plant is best known to the Indians for the rubber-like exudate which is collected from the stems and roots and used as chewing gum.

A cottony fuzz is gathered from the base of the plant and placed on boils and running sores to promote healing (Fallon, Schurz, Smith Valley, and Yerington - P). One informant claimed that the fuzz was inserted sometimes in tooth cavities but no explanation was given to this action (Schurz - P).

A few scattered Indians employ the plant for other remedial purposes but there is no agreement among the data thus obtained, each person having a different purpose in mind. The boiled roots, often mixed with other plants, are employed as a tea, taken internally as a tonic (Ely - S); the same solution used hot as a wash was said to reduce swelling (Hawthorne - P); or a solution prepared by boiling the tops of the plant was taken internally to stop vomiting (Austin - S) as a physic and emetic, or to stop diarrhea (Schurz - P) and finally as an eyewash (Beatty - S).

MARRUBIUM VULGARE L. Menthaceae

(P) quee-ban-oob. (E) horehound.

Whipping aching portions of the body with the branches served as a counter-irritant to stimulate blood circulation, according to data from one settlement (Schurz - P).

MENTHA CANADENSIS L. Menthaceae

(P) pah-quanna; pah-quanna-ah; pah-quanna-ah; pah-quanna-av; quee-boh-nay; toh-see-ten-ava. (S) pah-guanna. (W) pah-da-lo-yi. (E) common wild mint.

The most important medicinal use of this mint among the three tribes is in the treatment of stomach-ache, colic of babies, indigestion, diarrhea and like disorders. Usually the tea is made from the tops of the plant, although sometimes only the leaves or the roots are utilized. Once it was reported that the medicine was prepared by adding finely ground, ripe seed to a half-cupful of hot water (Fallon - P). The material may be either fresh or dried; in fact, many families lay in a supply of the plant for the winter months. The exact method for making the brew was not usually indicated, most of the Indians saying merely that the material was boiled and that the tea could be taken either hot or warm, weak or strong. According to one report a half-cupful of the strong tea will stop diarrhea (Dresslerville and Gardnerville - W).

The same brew, also taken as a drink, has a widespread employment for a number of other minor disorders such as headaches, colds and fevers.

Headaches are further relieved by smelling the crushed leaves, sometimes the leaves being actually inserted in the nostrils (Fallon - P), or by binding crushed stems to the head (Fallon and Yerington - P), and finally, by using the solution as a soothing wash (Schurz, Smith Valley, and Yerington - P).

In two communities it was considered efficacious to insert

crushed leaves in the nostrils to clear up head colds (Nixon and Schurz - P).

External applications of the liquid to reduce fevers were practiced (Ely, Owyhee, and Schurz - P & S).

In one instance it was reported that the leaves could be chewed for sore throats (Schurz - P), while in two others the crushed leaves were applied as poultices to reduce swellings (Fallon and Moapa - P).

MIMULUS GUTTATUS DC. Scrophulariaceae

(S) unda-vitch-quanna; pahn-zah-quatum. (E) monkey flower.

There are a few scattered areas in which some of the people are said to use the crushed leaves as poultices for wounds or rope burns (Austin, Elko, and Owyhee - S).

MONARDELLA ODORATISSIMA Benth. Menthaceae

(P) see-boo moh-goon-up; too-buzz-see-be. (S) guy-moh; toya-abba-hobe. (E) western balm; wild pennyroyal.

The remedy most frequently prepared from this plant is a tea taken for colds, as is true also for a number of the other mints in the State. The decoction is greatly favored too for indigestion, gas pains or any minor digestive upset.

One Indian said that a cupful of the tea from boiled branches would react as a physic (Elko - S); another employed the tea as a general tonic (Battle Mountain - S); still another considered it

specifically as a blood tonic (Austin - S); and also the solution was said to be suitable as an eyewash for soreness or inflammation (Fallon and Lovelock - P).

NICOTIANA ATTENUATA Torr. Solanaceae

(P) bah-moh; poo-ee-bah-hoon; poo-ee-bah-moh; poo-wee-buh-hoon; toh-quoh-quah. (S) new-wha bah-hoon; poo-ee-pah; pue-bax. (E) Indian tobacco; wild tobacco.

Although ordinarily employed by the Indians as a smoking tobacco, the plant has a number of remedial applications, most of them being external.

A favorite remedy is to apply the crushed leaves as a poultice to reduce swellings, especially those due to rheumatism (Elko, Schurz, and Winnemucca - P & S), although one Indian used the crushed seed as a liniment for such conditions (Schurz - P).

The poultice of crushed leaves was reported in the treatment of toothache by placing the material along the gum (Ruby Valley - S) and the same material was said to serve for eczema or similar skin infections (Winnemucca - P). The chewed leaves are sometimes applied to cuts (Owyhee - P & S), and they are bound on snakebites after the poison has been sucked out (Lovelock - P).

The decoction from the boiled leaves can be administered as a healing wash for hives or other skin irritations (Owyhee - P & S), and one person claimed that dropsical conditions could be relieved in the same manner (Yerington - P). The pulverized tobacco dust was sprinkled on sores (Nixon and Reno - P).

Aside from smoking the dried leaves for pleasure, some of the Indians believe that it also cures colds (Lovelock, Nixon, and Smith Valley - P), especially if the mixture is enriched with dried Salvia carnosa or with bits of 'toh-sah' root (Leptotaenia multifida). The addition of the last plant is suitable for asthma (Nixon and Rawhide - P) and especially so for tuberculosis (Reno and Ruby Valley - P & S).

Of remedies to be taken internally there was scant mention. Indians of two tribes reported that a tablespoon of the solution from the boiled leaves, taken three times a day would expel worms (Elko and Ruby Valley - P & S).

A weak solution of the leaves, either boiled or raw, was said to be a physic or an emetic (Hawthorne, Owyhee, and Winnemucca - P & S).

A compound remedy for treatment of a foot infection, ordinarily known as athlete's foot, was described by a Paiute family of Schurz. For this purpose a wet dressing was made by crushing fresh Nicotiana leaves with the tubers of a plant called 'see-nee buh-buh'. Judging from the description of the plant and its habitat, and from the appearance of the dried tubers, which were seen, it is probably the nut grass, Cyperus esculentus. The nut-grass tubers, sometimes known as 'too-boozie' are an important item of food among the Paiutes.

OPUNTIA BASILARIS Engelm. & Bigel. Cactaceae

(S) nah-vomb; wo-gay-be. (E) beavertail cactus.

The pulp from the interior of the plant is sometimes scraped out and applied directly as a wet dressing for cuts and wounds (Beatty - S). The dressing is changed frequently. It is claimed that this treatment deadens the pain and promotes healing. One woman at Lida said that her grandmother had employed this treatment, too, but that the plant used had been some other species of Opuntia. From this it might be assumed that the pulp from any cactus would suffice.

Although not belonging within the scope of the present paper it is of interest to record a method for removing warts and moles. The fine fuzz-like spines are rubbed into the affected part (Beatty - S).

OROBANCHE CALIFORNICA Cham. & Schlecht. Orobanchaceae

(P) tue-hoo; too-hoo. (S) doo; too-ee. (E) broomrape.

In the course of these studies several species of Orobanche were secured from the Indians but for the sake of brevity all the data is listed here under a single name. It seems certain that all of the species are employed indiscriminately for the purposes of the Indian.

The tender portions of the stalk are greatly prized by the Indians as food but there were only meagre reports of medicinal uses. The decoction from either fresh or dry plants was taken as a treatment for colds, pneumonia or pulmonary trouble (Austin, Nixon, and Reno - P).

OSMORHIZA OCCIDENTALIS (Nutt.) Torr. Umbelliferae

(P) pah-wah-cape; pah-wah-capish; pah-wah-gah-bish; wadda-eye-gop; worra-eye-gob. (S) bah-soh-wip; bas-oh-gway; bas-oh-wip. (W) oo-chu-lee mah-too. (E) sweetroot.

As a source for remedies, this plant holds high favor among all the Indians. It is employed in much the same manner as Leptotaenia multifida, that is to say the root decoction is taken as a cure for colds and other pulmonary disorders, also for pneumonia and influenza. Sometimes the pulverized root is smoked to clear up a cold (Elko - S) or it is chewed for sore throat (Elko, Ruby Valley, and Schurz - P & S). At Ruby Valley one Shoshone family prepared a tonic from the boiled roots. This, with sugar added, was taken hot to ward off colds and sore throat. The same family administered the hot tea, several teaspoonfuls at a time, for whooping cough.

In treating the ailments mentioned above the effect of the remedies are enhanced sometimes by the addition of other plants - see under Artemisia gnaphalodes and Leptotaenia multifida.

In most communities, the Shoshones and Paiutes look upon the root decoction as an important treatment for venereal disease, although many of the informants indicated that a long period of time was needed for the purpose. The usually indicated dosage was a half-cupful daily. In one locality the solution was prepared merely by soaking the roots in cold water for a day (Upper Reese River - S). See also under Leptotaenia multifida.

The root decoction is given also to reduce a fever (Fallon, Smith Valley, and Wells - P & S), and in one community to regulate

menstrual disorders (Upper Reese River - S). The hot tea, taken in doses of less than a half-cupful at a time is the standard fever remedy among the Paiutes at Fallon. (See also under Artemisia gnaphalodes). The tea can be used also for a number of minor indispositions, such as diarrhea (Elko and Ruby Valley - S) and chills (Fallon - P). Indians all over the State take the tea as a palliative for stomach-aches, gas pains, or indigestion. The tea is said to react either as a mild, or strong physic, depending upon the concentration of the brew.

Applied externally as a hot wash, the solution was said to kill head lice of humans (Ruby Valley, Wells, and Winnemucca - P & S), and it was reported once as a dip to kill chicken lice (Owyhee - P). Also the liquid is an external antiseptic for measles (Battle Mountain, Beowawe, and Ely - S), for venereal sores (Reno - P), skin rashes (Fallon - P), and as an eyewash (Elko and Fallon - P & S).

The raw roots are pulped, sometimes heated, and applied as a wet dressing for sores, cuts, bruises, swellings, and snake bite (Ely, Lovelock, Manhattan, and Reno - P & S). One report claimed that a piece of the raw root applied to an aching tooth would reduce the pain (Round Mountain - S) and another that pieces of fresh root inserted in the nostrils would relieve a headache (Wells - S).

PAEONIA BROWNII Dougl. ex Hook. Ranunculaceae

(P) bah-tee-pah; bah-tee-pee; bah-tee-vah; pah-too-bah.

(S) bah-div-ah; but-tu-vah; pah-dib-ah; pah-nah-din; witch-ah-so-oh. (W) doo-yah-gum-hoo; tue-age-nomo. (E) wild peony.

For internal treatments, the decoction from the boiled roots can be taken for tuberculosis (Dresslerville, Stillwater, and Summit Lake - P, S & W), venereal disease (Manhattan - S) for coughs and nausea (Owyhee - P & S), to stop diarrhea (Elko - S), and for kidney trouble (Elko and Winnemucca - P & S). A Shoshone at Elko, claimed that a three year treatment by this method had been successful in curing her husband of kidney stones. It might be supposed that the informant was confused as to the exact nature of this disease but in order to illustrate clearly the pains suffered by her husband she picked a stone from the ground and placed it over her left kidney. She said that he had passed such a stone and that he had been very ill. Since that time he has had no further trouble.

The root decoction was employed as a lotion for headaches (Reno - W), as a liniment for swellings (Reno - P), and as a gargle for sore throat and as a wash for sore eyes (Wells - S). The eyewash was prepared sometimes merely from a cold infusion of the soaked roots (Battle Mountain and Ely - P & S).

The mashed root served as a poultice for boils (Battle Mountain - S) and for deep cuts or wounds (Ruby Valley - S). However, a more preferred medication for cuts, wounds, sores, and burns, consists in applying a powder obtained by pulverizing the dried roots (Austin, Battle Mountain, Beowawe, Elko, and Smokey Valley - S).

PARRYA MENZIESII (Hook.) Greene Cruciferae

(P) toya-hoe-gob. (E) daggerpod.

The Indian name was given by two different Paiutes but it is interesting to note that the first syllable 'toya' means 'mountain' in the Shoshone language.

The remedial data secured indicated that the boiled roots could be taken as a tonic after childbirth (Winnemucca).

PEDICULARIS ATTOLENS A. Gray Scrophulariaceae

(W) wem-she. (E) elephant head.

One Indian said that a tea from the boiled leaves could be taken as a tonic (Dresslerville - W) while another, although slightly doubtful about the identity of the plant, believed it to be the one employed, raw or boiled, as a poultice for cuts, sores, and swellings (Dresslerville and Gardnerville - W).

PEDICULARIS CENTRANTHERA A. Gray Scrophulariaceae

(S) gooie-took-ie. (E) elephant head.

A single report indicated that the root was boiled to make a tea which is given to children for stomach-aches (Wells - S).

PENSTEMON DEUSTUS Dougl. ex Lindl. Scrophulariaceae

(P) too-buzz-sah-wop; too-buzz-see-bee. (S) dim-bah-sego; dim-bah-shego; too-buzz-see-bee. (E) white penstemon.

Often the plant is known to the Shoshones under the name

'tim-bah-hay nut-zoo' meaning 'bad disease medicine'. Apparently it is one of the more important remedies for venereal diseases. Medicine men collect the plant, grind it to a fine powder and sell it to other Indians in small quantities for as much as five dollars. Since the material is finely powdered, the uninformed Indians are unable to recognize the plant and thus the source of income for the medicine man is secure. Great interest was displayed whenever a group of Indians were shown a pressed specimen of the whole plant.

For venereal diseases the plant has a number of different applications. In two reports the whole plant was brewed and taken internally as a tea (Wells - S). A solution of boiled stems and leaves served as a douche for both men and women (Tonopah - S) although in this particular instance it was not made clear if the treatment was given as a preventative or as a cure. One informant described a treatment for gonorrhea in which a slender cylinder, whittled from the root, was inserted in the urethra (Manhattan - S). For another treatment of gonorrhea see under Gilia congesta. For venereal sores the treatment may be in the form of a poultice made from the green leaves (Peavine Creek and Smokey Valley - S) but usually it consists in using the pulverized leaves as a powder (Peavine Creek, Stillwater, Tonopah, and Wells - S). In fact the powder or poultice treatments are preferred by most of the Shoshones and Paiutes for any chronic sore, skin eruptions, itch, eczema or similar troubles.

A medicine woman told of having cured a serious ear infection

by dropping into the ear, one-half spoonful at a time, a strong solution made from boiled stems and leaves. The treatment was repeated three times a day and the patient soon recovered (Tonopah - S).

For swellings, either the green or the dried plants could be used as poultices (Ft. McDermitt and Summit Lake - P). The solution from boiled plants served as a hot bath for sore feet, swollen legs, and swollen veins (Smokey Valley and Wells - S). The solution was used also as an eyewash (Fallon and Owyhee - P & S).

Taken internally as a tea, the solution was recommended for stomach-aches, especially for children (Manhattan, Owyhee, Summit Lake, and Upper Reese River - P & S), also for colds and rheumatic aches (Upper Reese River - S).

PENSTEMON EATONI A.Gray — Scrophulariaceae

(S) toh-quoh-bag-um. (E) red penstemon.

The Indian who gave the data, was of the opinion that any red-flowered penstemon would serve in the remedy known to him. The whole plant is boiled and the solution used as a wash for burns (Beatty - S). It is said to allay the pain and to promote the growth of new skin.

PENSTEMON sp.. — Scrophulariaceae

(P) toh-quoh-wat-ziv.

Only a root and a few basal leaves were secured from the medicine bag of a squaw but she was unable to recognize her plant

among the various pressed specimens shown to her. The root portion is chewed and inserted in the cavity of a tooth to deaden the pain (Moapa - P).

PHLOX LONGIFOLIA Nutt. Polemoniaceae

(P) moh-goon-zee-eye-ah; quee-duh-too-nabba; toh-hah-tonegan; tu-be-man-up. (S) din-ah-ee-go; eye-go-dun-um; so-go-div-oh-sah; so-go-ron-zee-ah. (E) wild phlox.

It is quite likely that any of the Phlox group can be used by the Indians for their remedies but the majority of the specimens collected in connection with these studies belonged to the single species here listed.

The remedy most frequently prepared from this plant is an eyewash, and it is usually made merely by soaking the scraped roots in cold water but in a few cases the material was steeped or boiled.

The cold water infusion of the roots was mentioned for stomach-ache of children (Manhattan - S) but in one community the roots were boiled (Fallon - P).

To stop diarrhea the cold water infusion of mashed roots was reported once (Eureka - S) but sometimes the solution is made by steeping the root (Stillwater - S).

The boiled root preparation was taken as a physic and as a treatment for venereal disease (Yerington - P).

The entire plant was boiled and the solution taken as a tea for stomach disorders (Stillwater - S).

PHRAGMITES COMMUNIS Trin. Gramineae

(Moapa P) moh-goh-koh. (P) wo-cau-cau-pu. (E) common reed.

The reed is best known to the Paiutes as the source of a sugar which is called 'be-ha-bee' or sometimes 'bee-havie'. In the fall of the year the leaves and stems of the plant are profusely encrusted with a grayish exudate. The Indians gather this substance by shaking or beating the plants over a cloth. The exact origin of the exudate is not entirely clear but apparently it is nothing more than dried plant sap which oozes out through the punctures made by aphids.

Ordinarily the Indians eat the exudate as a candy but there were two reports of remedial application. The sugar was given to pneumonia patients with the idea that it loosened phlegm or that it soothed the pain in the lungs (Lovelock - P).

PHYSARIA CHAMBERSII Rollins Cruciferae

(P) tah-rah-gee-noob. (S) tah-pah-day. (E) twinpod.

This is used solely as an eyewash for soreness or sties. Usually the solution is prepared by soaking the dried or pulverized leaves in cold water (Eureka, Lovelock, Manhattan, and Stillwater - P & S) but in two reports the whole plant was boiled for the purpose (Duckwater and Fallon - P & S) while others indicated that the whole roots were soaked in warm water (Fallon - P) or the scraped roots in cold water (Monitor Valley - S).

PINUS ARISTATA Engelm. Pinaceae

(S) wong-govie. (E) bristlecone pine.

The pitch is heated and applied as a dressing for sores and to draw out boils (Wells - S).

PINUS MONOPHYLLA Torr. & Frem. Pinaceae

(P) sahn-a-pah wah-pee; too-bee; tu-ba; tu-bap-ee; wah-pee. (S) wah-pee. (W) ah-gum; wah-pee. (E) singleleaf pinyon.

The resin of this tree is one of the more important sources of remedies for the Indians and holds almost equal importance with Leptotaenia multifida in the treatment of colds. For this purpose the resin is boiled to make a hot tea which is then taken internally (Fallon and Schurz - P). The straight resin brew is little used, however, most of the Indians preferring to prepare the remedy by adding other plants, apparently for the sake of palatability.

In the combination cold remedy, Juniperus utahensis seems to be a favored plant, the pine resin being boiled with terminal twigs of the juniper (Battle Mountain and Lida - S). With this plant, too, it is often the custom to employ the pine needles and young twigs in place of, or in addition to, the resin (Basalt, Beatty, Lida, and Yerington - P & S). See also under Artemisia gnaphalodes, Heracelum lanatum, Leptotaenia multifida, and Salvia carnosa.

The pure pine resin potion is esteemed also in treating venereal disease (Belmont, Manhattan, Winnemucca, and Yerington - P & S),

although there were statements to the effect that the pure resin could be chewed (Fallon - P) or even swallowed whole as pills (Fallon and Gardnerville - P & W). At the last named place the Washoes said that gonorrhea could be treated by swallowing the clear, fresh resin or by drinking a tea made from boiled needles or wood.

The boiled resin tea was indicated as an internal medicant for a number of other ailments, such as rheumatism (Lovelock - P), tuberculosis and influenza (Schurz - P), chronic indigestion, bowel trouble, fevers, and nausea (Fallon, Manhattan, and Schurz - P & S).

To stop diarrhea the resin could be swallowed in the form of pills or else boiled and taken as a tea (Fallon and Schurz - P). See also under Rumex crispus.

For general debility, or for post childbirth period, the resin tea was deemed valuable as a tonic (Reno, Schurz, and Winnemucca - P).

A kidney medicine was prepared by boiling pine resin with terminal twigs of Juniperus utahensis (Wells - S). This was taken in doses of one-half glassful daily in alternate weeks.

For a similar preparation, taken for smallpox, see under Cowania mexicana.

Two people said that a sore throat could be soothed by chewing resin (Fallon - P) but sometimes the treatment consisted in applying the pulverized material with a swab (Reno - P).

A dressing of the heated resin as a drawing agent for boils or imbedded slivers had widespread practice by both Paiute and Sho-

shone Indians. The dressing was varied by the addition of crushed plants of Psathyrotes ramosissima (Fallon - P) or again by finely chopped, terminal twigs of Juniperus utahensis (Smith Valley - P).

The hot resin dressing was used commonly for sores, cuts, swellings, and insect bites. See also under Ephedra viridis. The pulverized substance acted as a drying agent when dusted on syphilitic sores (Mason Valley and Schurz - P).

The heated resin smeared on a hot cloth had general utility, in much the same fashion as a mustard plaster, in treating pneumonia (Tonopah - P & S), ruptures (Wells - S), sciatic pains (Lida - S) or any general muscular soreness (Fallon, Manhattan, and Monitor Valley - P & S). The same poultice, with crushed Salvia carnosa leaves added to the resin, was a special remedy for chest congestions due to colds (Fallon - P).

A cure for horse distemper is discussed under Leptotaenia multifida. For antiseptic treatment of rashes, see under Gutierrezia sarothrae, and for measles see under Purshia tridentata.

PLANTAGO MAJOR L. Plantaginaceae

(S) wee-dee; woo-dee. (E) common plantain.

Although the specimens secured in the course of these investigations were all of this species, it would be logical to assume that the others might be employed also by the Indians.

Ordinarily the green leaves of this plantain are crushed with those of Clematis ligusticifolia to make poultices. These are applied for wounds, bruises, swellings, rheumatism, and boils (Man-

hattan, Peavine Creek, and Smokey Valley - S). In one settlement the plantain leaves, alone, were mashed as dressings to reduce dropsical swellings and also to bring out the pus of infections (Monitor Valley - S). The whole, wilted leaves bathed in oil were bound on cuts and wounds to promote healing without leaving scars (Reno - P).

There were only two reports of internal applications and in these only the root was considered. In one, the root decoction was indicated as a tea for colds and pneumonia but no details of dosage were secured (Stewart - P). According to the other report, the tea was taken in a dose of a half-cupful or less for stomach trouble (Wells - S).

PLUCHEA SERICEA (Nutt.) Cov. Compositae

(Moapa P) sah-wape. (E) arrowweed.

For indigestion or sour stomach the raw root may be chewed or the material may be boiled and taken as a tea. The tea is given also to stop diarrhea and especially when blood is passed (Moapa - P).

POPULUS TREMULOIDES Michx. Salicaceae

(S) sing-gah-ve; sung-up. (E) quaking aspen.

Of the definite data secured, all pertain to the preparation of remedies for the treatment of venereal disease (Battle Mountain, Belmont, Monitor Valley, and Peavine Creek of the Smokey Valley area - S). Apparently only the bark is boiled to make the tea.

As usual, emphasis was placed on the long period of time which is necessary for the treatment to be effective. The daily quantity of liquid to be imbibed varied according to the locality, in some the dosage being merely a half-cupful, while others indicated three half-cupfuls, and one prohibited the drinking of water during the period of treatment (Peavine Creek).

For distinction of species by the Indians see under Populus trichocarpa.

POPULUS TRICHOCARPA T. & G. Salicaceae

(S) sing-gah-ve; sing-gop; so-ho-be; su-nabbe; toya-soo-nap.

(E) black cottonwood.

In the treatment of venereal disease by means of remedies prepared from representatives of the genus Populus, there are two schools of thought. Some of the Shoshones always select the aspen and ignore the cottonwoods while others insist that the aspen has no value whatsoever and that only the cottonwoods can be used. In this connection it must be pointed out that from the data secured in the course of these studies that it is still unclear as to whether all poplar species or only certain of these are suitable. At any rate in a number of cases the data could be connected definitely with P. trichocarpa and for this reason all the data is being assigned provisionally under that species.

The method of preparing the venereal remedy, already given under P. tremuloides, is employed also for the cottonwood bark (Austin, Battle Mountain, Manhattan, Upper Reese River, and Wells - S).

At Battle Mountain, however, the informant explained that the bark of cottonwood is mixed with that of Cercocarpus ledifolius to make the decoction. Data secured from an Indian Chief brought forth another variant remedy in which the cottonwood bark was boiled with roots of Wyethia amplexicaulis. This liquid, taken internally as a drink, was considered as an unfailing cure for syphilis (Ely - S).

The bark decoction was reported also as a tuberculosis medicine (Beowawe and Smokey Valley - S), but in the first mentioned place the remedy was considered more effective if bark of Cercocarpus ledifolius was added to the brew.

A solution from the boiled roots was employed as a lotion for headaches (Wells - S). A tonic for the blood and for general debility could be prepared by boiling the bark of cottonwood together with the roots of Rosa woodsii and of Urtica gracilis (Austin - S). The dose was a cupful at each meal.

The single Paiute remedy reported under the genus Populus was a medicine for stomach disorders (Winnemucca - P). It was said that the bark of a tree is cut in many places, the exuding sap being collected and boiled to make the tea.

POROPHYLLUM LEUCOSPERMUM Greene — Compositae

(Moapa P) pa-guidobe.

It is claimed that root decoction can be taken as a regulator for delayed menstruation (Moapa - P). The informant pointed out that it was possible to utilize also the stems and leaves but this caused the tea to be very bitter.

PROSOPIS PUBESCENS Benth. Leguminosae

(Moapa P) quee-et-umb. (E) screwbean.

A gummy exudate occasionally found on the bark is soaked in water and the liquid used as an eyewash (Moapa - P).

PRUNUS ANDERSONII A. Gray Rosaceae

(P) sahn-avvie; sahn-nab-bee. (S) bahn-zon-ip.

(E) desert peach; Nevada wild almond.

The steeped leaves and sometimes the boiled branches are utilized as a hot tea for colds (Nixon and Winnemucca - P).

A tea prepared from boiled stems and leaves was taken as a dose of one cupful to stop diarrhea (Schurz - P), or the tea could be made from boiled, dried roots and taken in a dose of a half-cupful (Smith Valley - P).

A handful of dried bark strips boiled in a quart of water was considered to be a good winter tonic to ward off influenza (Fallon - P). At the same town a weak solution was taken over a period of days for rheumatism.

Taking a tea from the inner bark or chewing the twigs was thought to be beneficial in the preliminary stages of tuberculosis (Reno - P).

PRUNUS VIRGINIANA var. DEMISSA (Nutt.) Torr. Rosaceae

(P) doh-ish-ah-boo-e; toh-ish-a-booe. (S) tohn-quah-zip; tone-quish-up. (W) si-pah-pah. (E) western chokecherry.

For tuberculosis a tea is prepared from the leaves or bark

(Schurz - P) or sometimes from the boiled, dried root (Smith Valley - P).

To treat ordinary coughs and colds a tea can be made by boiling the peeled bark (Upper Reese River - P) or in the same community some of the Indians boil the root shavings for the tea which is taken in quantities of less than a half-cupful several times daily until cured. The dried and pulverized bark is sometimes smoked to secure relief from headaches or head colds (Smith Valley and Yerington - P).

The bark decoction is considered beneficial also for indigestion or an upset stomach (Belmont - S).

A drying powder for sores is prepared by pulverizing the dried bark strips (Lovelock - P).

An interesting treatment for snowblindness was reported by members of two different tribes (Lovelock and Ruby Valley - P & S). The method consists simply in holding the head over a vessel of boiling bark in such a manner that the steam rises into the eyes.

PSATHYROTES ANNUA (Nutt.) A. Gray Compositae

(P) sebu-moh-goon-a-bu. (S) yoh-nip. (E) turtle back.

This small annual plant often is used interchangeable with the species which follows.

The remedies prepared from it have varied application. A brew of the entire plant serves as a medicine for stomach-ache especially in children, and for urinary troubles (Beatty - S), the plant is dried and steeped to make an eyewash (Moapa - P), and the dry leaves can be chewed for toothache (Walker Lake and Schurz - P).

PSATHYROTES RAMOSISSIMA (Torr.) A. Gray Compositae

(P) ka-sigh-yah-gava; sebu-moh-goon-a-bu; see-boh mo-goon-ub; sigh-yah-gava. (S) quoy-hee nut-zoo.

(E) turtle back.

This, like the preceding species, is the basis of various remedies. Most commonly, though, the Indians use the plant decoction as an emetic or physic to be taken for stomach-ache, bowel disorders, diarrhea, constipation, biliousness, or liver trouble (Fallon, Hawthorne, Lida, Lovelock, Round Mountain, and Schurz - P & S).

The plant decoction was mentioned twice as a venereal remedy (Hawthorne and Lida - P & S). At Lida it was said that the plant should be gathered after it starts to turn brown late in the season. The dosage is the usual one-half cupful over a long period of time. At Hawthorne it was claimed that the solution burns the throat and for this reason the medicine is always followed by a drink of warm water.

A single report indicated that the medicine was taken for tubercular cough in a dosage of about one-half cupful a day. It was not considered to be effective for colds (Upper Reese River - S).

As a poultice or wet dressing on swellings or snakebite the green plant usually is crushed and applied (Fallon, Monitor Valley, and Tonopah - P & S) but some of the people dry and store a supply for the winter and make the poultice by moistening the pulverized material (Schurz - P).

As a head wash to relieve headaches the decoction is sometimes beneficial (Fallon and Lida - P & S).

For treatment of boils see data under Abies concolor and Pinus monophylla.

PURSHIA TRIDENTATA (Pursh) DC. Rosaceae

(P) huh-na-bee. (S) huh-nabbe; linna-huh-nabbe.

(W) bal-nat-san. (E) antelope brush; bitterbrush.

The boiled leaf decoction holds an important place among Indian remedies as a cure for venereal disease. The solution is taken as a tea (Belmont, Fallon, Manhattan, Round Mountain, Schurz, Smokey Valley, Tonopah, and Upper Reese River - P & S). At Schurz the remedy was indicated specifically for gonorrhea. Some of the Indians prepare the liquid in quantity and store it in bottles. Some practitioners prefer a tea made from the inner bark of the trunks (Hawthorne - P) while others use only the boiled roots (Monitor Valley - S). See also Ephedra viridis.

Both Paiutes and Shoshones in many communities drink a tea made from the boiled leaves, or sometimes the twigs, when a physic or emetic is desired. Apparently the degree of action is regulated by the strength of the solution. In one instance the method of preparation was to boil a handful of leaves in just enough water to cover (Beatty - S). Another tribe prepared the physic by boiling ripe, unground seed (Dresslerville - W).

Remedies from this plant are employed extensively in the treatment of smallpox, chicken pox, and measles (Battle Mountain, Beatty,

Beowawe, Elko, Ely, Hawthorne, Lida, Nixon, Owyhee, Ruby Valley, Schurz, Smith Valley, and Wells - P & S). In the data secured from these different places there was no general agreement in the method of preparing the remedies nor in the mode of administration.

As an internal medicant for the three diseases named above it was the usual custom to boil the leaves of the plant, although sometimes the leaves and younger branches were combined, and at times even the flowers were included. The quantity of the liquid to be imbibed at a time was not always indicated but apparently the amount should be less than a half-cupful due to the emetic properties of the decoction. In special reference to measles it was believed that the potion hastened the appearance of the rash.

The external phases of these same diseases were treated in some communities also by employing the decoction as a wash.

In fact the external wash was considered universally to be an efficacious antiseptic for any sort of itch, rash, skin eruption, scratch, or insect bite. The green leaves could be mashed and applied as a wet dressing for sores (Lovelock and Upper Reese River - P & S) or the dried leaves were dusted on as a powder (Schurz - P).

Of the compounded remedies, there was an external wash for rashes made by boiling the young twigs of Purshia tridentata with the resin of Pinus monophylla (Beowawe - S). A preparation, concocted by boiling a chunk of dried rat-urine, called 'kah-seep', with Purshia tridentata twigs, was taken internally for smallpox

(Wells - S). (Also see 'kah-seep' under Cowania mexicana.) In one instance the internal treatment for measles was the usual brew of leaves and flowers of Purshia tridentata used in connection with an external wash prepared from the boiled roots of Wyethia amplexicaulis (Ruby Valley - S).

To prepare a tea for tuberculosis some of the Indians utilized the inner white bark from the base of the plant (Nixon, Summit Lake, and Schurz - P), but others used only the dried outer bark (Winnemucca - P). See also under Cercocarpus ledifolius.

The leaf decoction was reputed to be a good medicine for colds (Fallon, Reno, and Tonopah - P), for pneumonia (Schurz - P), for liver trouble (Reno - P), and as a blood or general tonic (Fallon and Tonopah - P & S).

One Indian said she had administered a decoction of the inner bark, taken as a drink, to aid the healing of an internal rupture (Tonopah - S). She also recommended this plant in the treatment of milk leg; a small bundle of the inner bark strips were dipped in cold water and sucked, while a solution of the boiled leaves was used as a wash for the swelling.

PYROLA ASARIFOLIA Michx. Ericaceae

(S) goo-ye guanna. (E) shinleaf.

The roots only are boiled to make a tea, which is taken in daily doses of a half-cupful or less over a period of several days as a remedy for liver trouble (Ruby Valley - S).

RHUS TRILOBATA Nutt. Anacardiaceae

(Moapa P) see-a-wimp. (E) squawberry.

The fruits are dried and powdered as an astringent for smallpox sores (Las Vegas - P).

RIBES AUREUM Pursh Saxifragaceae

(P) bo-gumbe; poh-oh-bis. (S) bo-gumbe. (E) golden currant.

Most of the data indicated that the inner bark is dried, pulverized, and applied as a powder to cure sores (Ft. McDermitt - P) but there was one report of its being made into a tea to be taken for leg swellings (Owyhee - P & S).

ROSA WOODSII Lindl. Rosaceae

(P) see-avvie. (S) see-avvie; see-am-bip. (W) pet-soom-a-lee; pet-su-mah-le. (E) wild rose.

A tea from the steeped leaves is highly valued everywhere as a beverage, and there are some Indians who take the drink regularly in the spring as a tonic (Fallon and Mason Valley - P). (See data under Populus trichocarpa). Many individuals make a tea from the boiled roots, or inner bark of the stems, as a cure for colds (Austin, Elko, Minden, Nixon, Owyhee, Reno, Schurz, and Summit Lake - P, S & W).

In the use of the plant as a tonic or cold remedy, as indicated in the preceding paragraph, the benefit sought by the Indians may well be that of a physic. However, the root decoction has been re-